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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,475	10/17/2005	Luigi Resconi	FE 6101 (US)	8915
34872	7550	04/28/2009		
Basell USA Inc. Delaware Corporate Center II 2 Righter Parkway, Suite #300 Wilmington, DE 19803			EXAMINER ZEMEL, IRINA SOPHIA	
			ART UNIT	PAPER NUMBER
			1796	
			MAIL DATE	DELIVERY MODE
			04/28/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/553,475

Applicant(s)

RESCONI ET AL.

Examiner

Irina S. Zemel

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2008 and 22 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-4 and 6-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda in combination with US Patent 6,451,726 to Zambon et al., (hereinafter "Zambon") or US Patent 5,759,940 to Sacchetti et al., (hereinafter "Sacchetti").

As discussed in the previous office action, "Ueda *et al.* teaches a process for polymerization of olefins in the presence of a metallocene catalyst bound to a porous prepolymer support. For example, illustrative example 1 discloses $\text{Me}_2\text{Si}(2\text{-}n\text{-Pr-4-(9-phenanthryl)Ind})_2\text{ZrCl}_2/\text{MAO}$ catalyst which is used to prepolymerize porous propylene (PP). In a subsequent step, the supported catalyst is used to polymerize propylene in the presence of significant amounts of H_2 and $i\text{Bu}_3\text{Al}$ co-activator. The PP homopolymer obtained in this stage is disclosed as having melting point of 161 C. In the second stage a second component, i.e. a copolymer is prepared by polymerizing ethylene and 1-butene (gas phase mixture) in the presence of polypropylene prepared in the previous stage and remaining $i\text{Bu}_3\text{Al}$ co-activator and also in the presence of significant amounts of hydrogen."

The reference further discloses various methods of obtaining the supported catalysts as per column 15, line 5 to column 18, line 21. The disclosure of supported references includes disclosure of organic porous supports based on polymerized olefins.

The reference does not disclose properties of polymeric organic support, such as specified porosity parameters, thus implying that any known polymeric supports known as supports for catalysts used in polyolefin polymerization are suitable for the invention.

The catalytic organic polymeric porous supports that fully correspond to the claimed supports in porosity are known in the art and disclosed, for example in Sacchetti or Zambon. Both references disclose polymeric catalytic supports that fully correspond to the claimed supports and further disclose that use of such catalytic "components" or supports leads to catalysts of improved activity and also, when used for polyolefin polymerization, results in the polymers of desired morphology. Therefore, use of catalytic supports as disclosed by Sacchetti or Zambon in process of Ueda (expressly disclosing that catalysts of his invention can be supported catalysts) would have been obvious to improve catalytic activity and to obtain final polymers of desired morphology.

The reference does not specifically disclose the steps as per claim 9, however, it appears that this claim claims a product obtained by the claimed process steps, and not the process itself. As such, the steps limitations are given patentable weight only to the extent that the actual product obtained by the claimed steps is patentably different from the products disclosed in the cited reference. In the instant case, it is reasonable believed that the disclosed supported catalysts are substantially the same as the catalysts obtained by the process of claim 9 as they result in supported metallocene catalysts of identical chemical structure and catalytic activity. Since the PTO can not

conduct experiments, the burden of proof is shifted to the Applicants to establish an unobviousness difference. *In re Fitzgerald*, 619 F.2d. 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112-2112.02. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

The Ueda reference does not expressly disclose the properties of the polypropylene obtained by the process according to Ueda's invention, however, since the process disclosed in Ueda, by itself, or, especially, as modified by the teachings of the two secondary references (Zambon or Sacchetti to in order to have catalysts of improved activity and to obtain resulting polymer of desired morphology) is substantially similar to the process of the instant application, it is reasonably believed that the PP obtained in the process of examples of Ueda inherently exhibit the claimed properties. This belief is further supported by the facts that at least the properties (i) and (iii) are inherent properties of PP polymerized with metallocene catalysts. The burden is shifted to the applicants to provide factual evidence to the contrary.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda in combination with Sacchetti or Zambon and further in combination with WO 01/44319 to Basell Technology Company, B.V. (hereinafter "Basell Technology").

This is an alternative rejection of claim 9 (presuming that the steps of obtaining the catalyst are claimed as the positive steps of the process of claim 8 and/or the method of obtaining the supported catalyst may have an impact on the catalyst properties).

The disclosure of Ueda, Sacchetti and Zambon are discussed in detail above. While the Ueda, Sacchetti or Zambon reference discloses several methods for preparing supported catalysts

The references donot expressly disclose the steps as recited in claim 9 of the instant application.

Basell technologies discloses the process to obtain supported metallocene catalysts for olefin polymerization which process steps are identical to the claimed steps of the instant claim 9. The Basell Technologies reference expressly disclose that this process results in production of supported catalysts with better catalyst distribution on the support and the process is efficient and economically advantageous. Thus, it would have been obvious to utilize the process of Basel Technologies to obtain supported catalyst as disclosed in Sacchetti or Zambon for polymerization process of Ueda, since the catalyst disclosed in Ueda and Basel Technologies references are chemically identical metallocene catalysts used for polyolefin polymerization, and the catalysts obtained by the process of Basell Technologies results in uniformly distributed, thus more effective, catalytic systems.

Response to Arguments

Applicant's arguments with respect to claims 1-4 and 6-14 have been considered but are moot in view of the new ground(s) of rejection.

It is. However, noted that the applicants arguments regarding the catalyst support not having the specified properties, are addressed above in the body of the rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Irina S. Zemel/
Primary Examiner, Art Unit 1796

Irina S. Zemel
Primary Examiner
Art Unit 1796

ISZ